UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,466	12/27/2001	Robert Bushey	10004830-1	2190

7590   10/07/2005

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER
SHIN, KYUNG H

ART UNIT	PAPER NUMBER
2143	

DATE MAILED: 10/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

μι

	Application No.	Applicant(s)
Office Action Summary	10/034,466	BUSHEY, ROBERT
	Examiner	Art Unit	
	Kyung H. Shin	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>27 December 2001</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-37</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-37</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>27 December 2001</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date <u>5/28/03</u>.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

μ

DETAILED ACTION

1.   This action is responding to application papers filed 12/27/2001.

2.   Claims **1 - 37** are pending. Independent claims are **1, 9, 17, 29**.

Claim Rejection - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form

the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.   **Claims 1 - 5, 7, 8** are rejected under 35 U.S.C. 102(e) as being anticipated by

Singhal et al. (US Patent No. 6,925,481).

Regarding Claim 1, Singhal discloses an appliance network having format-neutral

multimedia communication, said network comprising:

   a) two or more appliances connected to said appliance network, each of said two or

   more appliances having interface information defining its multimedia capabilities;

   (see Singhal col. 3, lines 28-30; col. 1, lines 23-30; col. 7, lines 4-6; col. 7, lines

   52-54: wireless information devices (i.e. appliances, handheld devices, PDAs),

   information for processing content)

b) a communication protocol for communicating said interface information over said

appliance network (see Singhal col. 5, lines 43-50; col. 5, line 62 - col. 6, line 2:

protocols utilized to transfer content), wherein each of said two or more

appliances comprises:

   i) an application information base (AIB) for storing interface information for

   each of said two or more appliances connected to said appliance network;

   (see Singhal col. 7, lines 4-6; col. 7, lines 49-54: repository (i.e. database)

   for data manipulation (i.e. conversion, reformat))

   ii) a network interface for communicating multimedia data over said appliance

   network; (see Singhal col. 6, lines 41-51: communications network interface

   for wireless information devices (i.e. appliances)) and

   iii) a multimedia manager for translating said multimedia data into a compatible

   format. (see Singhal col. 7, lines 1-6; col. 7, lines 17-20; col. 7, lines 52-54:

   data manipulation manager (i.e. multimedia manager), convert data into a

   required format)

Regarding Claim 2, Singhal discloses the appliance network of claim 1 wherein said

communication protocol prompts each of said two or more appliances to communicate

said interface information upon connecting to said appliance network. (see Singhal col.

5, lines 43-50; col. 5, line 62 - col. 6, line 2; col. 7, lines 17-20: communication protocols

utilized, request (i.e. prompt) for interface information)

Regarding Claim 3, Singhal discloses the appliance network of claim 1 further

comprising: a communication configuration, said communication configuration

comprising at least one of: a point-to-point configuration; a point-to-multipoint

configuration; a ring configuration; and a spoke configuration. (see Singhal col. 6, lines

41-51: wireless communications network (i.e. point-to-point configuration))

Regarding Claim 4, Singhal discloses the appliance network of claim 3 wherein said

communication configuration is selected by one of said two or more appliances initiating

communication of said multimedia data. (see Singhal col. 8, lines 50-54: selection of

services (i.e. type of communications))

Regarding Claim 5, Singhal discloses the appliance network of claim 1 wherein said

communication protocol provides for each of said two or more appliances to

communicate all of its interface information to each other of said two or more appliances

connected to said appliance network when said each of said two or more appliances

initially connects to said appliance network. (see Singhal col. 7, lines 17-20: client (i.e.

appliance) device initiated visual data conversion (i.e. a request))

Regarding Claim 7, Singhal discloses the appliance network of claim 1 wherein said

multimedia data is translated into said compatible format for each of said two or more

appliances receiving said multimedia data by one of said two or more appliances

transmitting said multimedia data over said appliance network. (see Singhal col. 7, lines

1-6; col. 7, lines 17-20; col. 7, lines 52-54: data manipulation manager (i.e. multimedia

manager), convert data into a required format)

Regarding Claim 8, Singhal discloses the appliance network of claim 1 wherein said multimedia data is translated into said compatible format for each of said two or more appliances receiving said multimedia data by one of:

a) one of said two or more appliances transmitting said multimedia data over said appliance network; (see Singhal col. 6, lines 41-51: wireless communications network for data transmission) and

b) said each of said two or more appliances receiving said multimedia data; responsive to said interface information. (see Singhal col. 7, lines 17-20; col. 7, lines 52-54: visual data converted based on interface (i.e. data manipulation) information)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   **Claims 6, 9 - 19, 21 - 25, 27 - 37** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Singhal** in view of **Margulis et al.** (US Patent No. 6,157,396).

Regarding Claim 6, Singhal discloses the appliance network of claim 1 wherein said

multimedia manager comprises:

a) at least one coding-decoding application for converting a format of received

multimedia data into said compatible format responsive to said interface

information; (see Singhal col. 7, lines 1-6; col. 7, lines 17-20: data manipulation

manager (i.e. multimedia manager), convert (i.e. reformat, decode) data into a

required format)

Singhal does not specifically disclose the processing of color (i.e. gamut) visual

data. However, Margulis discloses:

b) a gamut mapping application for translating said multimedia data onto a local

user interface; (see Margulis col. 16, lines 53-67; col. 14, lines 34-36; col. 19, line

66 - col. 20, line 3: color mapping, translation) and

c) a resolution application for regulating a resolution of said multimedia data into a

compatible resolution for said local user interface. (see Margulis col. 19, lines 18-

20; col. 21, lines 36-40: visual data display resolution adjustment)

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Singhal to enable the usage of color mapping and display

resolution adjustment techniques as taught by Margulis. One of ordinary skill in the art

would be motivated to employ Margulis in order to enhance and optimize image quality

for an image processing system. (see Margulis col. 5, lines 13-14: " ... *an image*

processing system to enhance display quality and provide the best possible visual

images ... ")

Regarding Claim 9, Singhal discloses a method for dynamically reformatting

multimedia information in a network of appliances comprising the steps of:

   a) obtaining interface settings for each of said appliances; (see Singhal col. 7, lines

   49-54: database for interface settings)

   b) receiving said multimedia information from one of said appliances at a local

   appliance; (see Singhal col. 7, lines 17-20: communications network, conversion

   request processed)

   c) decoding a format of said received multimedia information according to said

   interface settings; (see Singhal col. 7, lines 17-20; col. 7, lines 52-54: conversion

   of visual data based on interface information)

   Singhal does not disclose color translation and resolution adjustment

   techniques for visual data. However, Margulis discloses:

   d) translating color data of said multimedia information into a color scheme of said

   local appliance; (see Margulis col. 14, lines 34-36; col. 19, line 66 - col.20, line 3:

   color translation table) and

   e) adjusting a resolution of said multimedia information into a resolution scheme of

   said local appliance. (see Margulis col. 19, lines 18-20; col. 21, lines 36-40:

   visual data display resolution adjustment)

   It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Singhal to enable the usage of color translation and

display resolution adjustment techniques as taught by Margulis. One of ordinary skill in

the art would be motivated to employ Margulis in order to enhance and optimize image quality for an image processing system. (see Margulis col. 5, lines 13-14)

Regarding Claim 10, Margulis discloses the method of claim 9 wherein said translating step comprises the steps of:

    a) reading a point from said color data of said multimedia information; (see Margulis col. 14, lines 34-36; col. 19, line 66 - col. 20, line 3: color translation) and

    b) looking up a translation point in a table of color points within said color scheme. (see Margulis col. 14, lines 34-36; col. 19, line 66 - col. 20, line 3: color translation table)

    It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Singhal to enable the usage of color translation techniques as taught by Margulis. One of ordinary skill in the art would be motivated to employ Margulis in order to enhance and optimize image quality for an image processing system. (see Margulis col. 5, lines 13-14)

Regarding Claim 11, Margulis discloses the method of claim 10 further comprising the steps of:

    a) substituting said translation point into said multimedia information when said translation point is found in said table; (see Margulis col. 14, lines 34-36; col. 19, line 66 - col. 20, line 3: color translation table) and

b) Interpolating an estimated color point corresponding to said point from said

multimedia information. (see Margulis col. 16, lines 53-67; col. 14, lines 34-36;

col. 19, line 66 - col. 20, line 3: color mapping, translation table)

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Singhal to enable the usage of color mapping and

translation techniques as taught by Margulis. One of ordinary skill in the art would be

motivated to employ Margulis in order to enhance and optimize image quality for an

image processing system. (see Margulis col. 5, lines 13-14)

Regarding Claim 12, Margulis discloses the method of claim 9 wherein said translating

step comprises the step of: calculating a translation point using a gamut mapping

formula. (see Margulis col. 14, lines 34-36; col. 19, line 66 - col. 20, line 3; col. 16, lines

53-67: color translation table, color mapping)

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Singhal to enable the usage of color mapping and

translation techniques as taught by Margulis. One of ordinary skill in the art would be

motivated to employ Margulis in order to enhance and optimize image quality for an

image processing system. (see Margulis col. 5, lines 13-14)

Regarding Claim 13, Margulis discloses the method of claim 9 wherein said adjusting

step comprises the steps of:

a)   down-sampling said resolution of said multimedia information when said

resolution is higher than said resolution scheme of said local appliance; (see

Margulis col. 19, lines 18-20; col. 21, lines 36-40: conversion from a high

resolution to a low resolution) and

b)   up-sampling said resolution of said multimedia information when said resolution

is lower than said resolution scheme of said local appliance. (see Margulis col.

23, lines 45-49: conversion from a low resolution to a high resolution)

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Singhal to enable resolution adjustments to visual data

between a high and a low resolution as taught by Margulis. One of ordinary skill in the

art would be motivated to employ Margulis in order to enhance and optimize image

quality for an image processing system. (see Margulis col. 5, lines 13-14)

Regarding Claim 14, Margulis discloses the method of claim 13 further comprising the

step of: smoothing said multimedia information. (see Margulis col. 14, lines 45-48; col.

19, lines 14-17; col. 23, lines 57-59: visual data smoothing capabilities)

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Singhal to enable visual data smoothing techniques as

taught by Margulis. One of ordinary skill in the art would be motivated to employ

Margulis in order to enhance and optimize image quality for an image processing

system. (see Margulis col. 5, lines 13-14)

Regarding Claim 15, Singhal discloses the method of claim 9 further comprising the steps of:

    c) coding said multimedia information into a remote visual format according to said interface settings; (see Singhal col. 7, lines 17-20: convert (i.e. reformat) visual data for display) and

    d) transmitting said multimedia information from said local appliance to another one of said appliances on said network. (see Singhal col. 6, lines 41-51: communications network for data transmission between client (i.e. appliance) devices)

        Singhal does not disclose display visual data resolution adjustment and the utilization of a color translation table. However, Margulis discloses:

    a) adjusting said resolution scheme of said local appliance into a remote resolution scheme; (see Margulis col. 19, lines 18-20; col. 21, lines 36-40: display resolution adjustments)

    b) translating said color scheme of said local appliance into a remote color gamut space; (see Margulis col. 16, lines 53-67; col. 14, lines 45-48: color mapping, translation)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Singhal to enable the usage of a color translation table and adjusting display resolution as taught by Margulis. One of ordinary skill in the art would be motivated to employ Margulis in order to enhance and optimize image quality for an image processing system. (see Margulis col. 5, lines 13-14)

Regarding Claim 16, Singhal discloses the method of claim 9 further comprising the

steps of:

    a) copying said received multimedia information; (see Singhal col. 7, lines 49-54:

       repository (i.e. database) for content information) and

    b) transmitting said copied multimedia information to one of said appliances on said

       network. (see Singhal col. 6, lines 41-51: wireless communications network for

       data transmission)

Regarding Claim 17, Singhal discloses a dynamic reformatting engine for processing

image data transmitted on an appliance network:

    a) code for managing communication from an appliance on said appliance network;

       (see Singhal col. 6, lines 41-51: communications network for data transmission)

    b) a memory for storing appliance compatibility information received from each of

       said appliances on said appliance network; (see Singhal col. 7, lines 49-54:

       repository (i.e. database, storage) for compatibility information)

    c) code for interpreting at least one format of said image data responsive to said

       appliance compatibility information; (see Singhal col. 7, lines 17-20; col. 7, lines

       52-54: convert (i.e. format) visual data for display device)

       Singhal does not disclose color mapping and visual data resolution

       adjustments. However, **Margulis** discloses:

d) code for mapping points from one color gamut space to another color gamut space; (see Margulis col. 16, lines 53-67: color mapping) and

e) code for adjusting a resolution of said image data into another resolution. (see Margulis col. 19, lines 18-20; col. 21, lines 36-40: visual data display resolution adjustment)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Singhal to enable color mapping and visual data resolution adjustment techniques as taught by Margulis. One of ordinary skill in the art would be motivated to employ Margulis in order to enhance and optimize image quality for an image processing system. (see Margulis col. 5, lines 13-14)

Regarding Claim 18, Margulis discloses the dynamic reformatting engine of claim 17 further comprising: code for smoothing said image data after said image data manipulated by said appliance. (see Margulis col. 14, lines 45-48; col. 19, lines 14-17; col. 23, lines 57-59: visual data smoothing capabilities)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Singhal to enable visual data smoothing techniques as taught by Margulis. One of ordinary skill in the art would be motivated to employ Margulis in order to enhance and optimize image quality for an image processing system. (see Margulis col. 5, lines 13-14)

Regarding Claim 19, Singhal discloses the dynamic reformatting engine of claim 17

further comprising: code for processing said image data at one of said appliances for

display on another of said appliances according to appliance compatibility information

corresponding to said another of said appliances. (see col. 7, lines 17-20; col. 7, lines

52-54: conversion of visual data (i.e. based on compatibility information) for client (i.e.

appliance) device)

Regarding Claim 21, Singhal discloses a network appliance capable of dynamically

reformatting visual data communicated across a network of appliances, said network

appliance comprising:

    a) an appliance manager for obtaining interface information for each appliance

       connected to said network of appliances; (see Singhal col. 7, lines 1-6: data

       manipulation (i.e. conversion, reformat) server (i.e. appliance manager))

    b) an appliance information base for storing said interface information; (see Singhal

       col. 7, lines 49-54: repository (i.e. database) storage)

    c) at least one codec for transcoding visual data formats responsive in part to said

       interface information; (see Singhal col. 7, lines 17-20; col. 7, lines 52-54: convert

       (i.e. transcoding, reformat) visual data based on interface information)

       Singhal does not disclose visual data mapping and resolution adjustment

       techniques. However, Margulis discloses:

    d) a conversion manager for mapping said visual data onto a local user interface of

       said network appliance; (see Margulis col. 16, lines 53-67: data mapping

       capabilities) and

e) a resolution manager for adjusting said visual data to a resolution of said local

user interface. (see Margulis col. 19, lines 18-20; col. 21, lines 36-40: visual data

resolution adjustment)

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Singhal to utilize visual data mapping and resolution

adjustment techniques as taught by Margulis. One of ordinary skill in the art would be

motivated to employ Margulis in order to enhance and optimize image quality for an

image processing system. (see Margulis col. 5, lines 13-14)

Regarding Claim 22, Singhal discloses the network appliance of claim 21 further

comprising: a transmission manager for managing the transcoding of visual data

transmitted from said network appliance into a format compatible with another appliance

connected to said network of appliances responsive to said interface information. (see

Singhal col. 7, lines 1-6; col. 7, lines 17-20; col. 7, lines 52-54: data manipulation server

(i.e. transmission manager), convert (i.e. format) visual data for display)

Regarding Claim 23, Singhal discloses the network appliance of claim 21 further

comprising: a reception manager for managing the transcoding of visual data received

from another appliance on said network of appliances into a format compatible with said

local user interface. (see Singhal col. 7, lines 1-6; col. 7, lines 17-20; col. 7, lines 52-54:

data manipulation server (i.e. reception manager), convert (i.e. format) visual data for

display)

Regarding Claim 24, Margulis discloses the network appliance of claim 21 wherein

said resolution manager includes:

    a) a down-sampler for reducing said resolution of said visual data when said

        resolution of said visual data exceeds said resolution of said local user interface;

        (see Margulis col. 19, lines 18-20; col. 21, lines 36-40: conversion from a high

        resolution to a low resolution) and

    b) an up-sampler for increasing said resolution of said visual data when said

        resolution of said visual data is lower than said resolution of said local interface.

        (see Margulis col. 23, lines 45-49: conversion from a low resolution to a high

        resolution)

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Singhal to enable adjustments to visual data between a

high and a low resolution as taught by Margulis. One of ordinary skill in the art would be

motivated to employ Margulis in order to enhance and optimize image quality for an

image processing system. (see Margulis col. 5, lines 13-14)

Regarding Claim 25, Margulis discloses the network appliance of claim 24 wherein

said resolution manager further includes: a smoothing algorithm for blending said visual

data. (see Margulis col. 14, lines 45-48; col. 19, lines 14-17; col. 23, lines 57-59:

smoothing of visual data)

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Singhal to utilize visual data smoothing techniques as

taught by Margulis. One of ordinary skill in the art would be motivated to employ

Margulis in order to enhance and optimize image quality for an image processing

system. (see Margulis col. 5, lines 13-14)

Regarding Claim 27, Singhal discloses the network appliance of claim 26 further

comprising: a store and forward device for storing said non-reformatted copy of said

visual data and forwarding said data to said another appliance. (see Singhal col. 7, lines

25-29: data forwarding capability)

Regarding Claim 28, Singhal discloses the network appliance of claim 21 wherein said

conversion manager includes:

a) a look up table for mapping a remote gamut point of said communicated visual

data into a local gamut point within a local gamut space of said network

appliance; (see Margulis col. 16, lines 53-67: color (i.e. gamut) space mapping)

and

b) an interpolator for interpolating said remote gamut point into said local gamut

space when a location of said local gamut point is not disposed in said look up

table. (see Margulis col. 16, lines 53-67; col. 14, lines 34-36; col. 19, line 66 - col.

20, line 3: color mapping, translation techniques)

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Singhal to utilize color mapping and translation table

techniques as taught by Margulis. One of ordinary skill in the art would be motivated to employ Margulis in order to enhance and optimize image quality for an image processing system. (see Margulis col. 5, lines 13-14)

Regarding Claim 29, Singhal discloses a method for reformatting media information in a networked appliance comprising the steps of:

a) receiving said media information at a network interface; (see Singhal col. 6, lines 41-51: wireless communications network for data transmission)

b) decoding a format of said received media information according to stored user interface information; (see Singhal col. 7, lines 17-20; col. 7, lines 52-54; col. 18, lines 3-9: convert (i.e. decode, reformat) visual data)

Singhal does not disclose color mapping and display resolution adjustment techniques. However, Margulis discloses:

c) mapping color points from said media information onto a color system used by said networked appliance; (see Margulis col. 16, lines 53-67: color mapping) and

d) adapting a resolution of said media information according to a user interface of said networked appliance. (see Margulis col. 19, lines 18-20; col. 21, lines 36-40: visual data display resolution adjustment)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Singhal to utilize visual data color mapping and resolution adjustment techniques as taught by Margulis. One of ordinary skill in the art would be motivated to employ Margulis in order to enhance and optimize image quality for an

image processing system. (see Margulis col. 5, lines 13-14)

Regarding Claim 30, Singhal discloses the method of claim 29 further comprising:

transmitting user interface information for said networked appliance when said

networked appliance connects to a network. (see Singhal col. 7, lines 7-20; col. 6, lines

41-51: request (i.e. user interface information) for visual data conversion (i.e. format),

communication network)

Regarding Claim 31, Singhal discloses the method of claim 29 further comprising:

    a) receiving user interface information for all appliances connecting to a network on

       which said networked appliance is connected; (see Singhal col. 7, lines 17-20:

       request (i.e. user interface information) to convert (i.e. format) visual data) and

    b) storing said received user interface information. (see Singhal col. 7, lines 49-54:

       repository (i.e. database) storage)

Regarding Claim 32, Margulis discloses the method of claim 29 further comprising:

smoothing said received media information prior to displaying said received media

information on said user interface of said networked appliance. (see Margulis col. 14,

lines 45-48; col. 19, lines 14-17; col. 23, lines 57-59: smoothing of visual data)

    It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Singhal to utilize visual data smoothing techniques as

taught by Margulis. One of ordinary skill in the art would be motivated to employ

Margulis in order to enhance and optimize image quality for an image processing

system. (see Margulis col. 5, lines 13-14)

Regarding Claim 33, Margulis discloses the method of claim 29 wherein said mapping

step comprises the steps of:

a) reading each of said color points of said media information; (see Margulis col. 16, lines 53-67: color mapping)

b) looking up a translation color point that corresponds to said read color point; (see Margulis col. 14, lines 34-36; col. 19, line 66 - col. 20, line 3: color translation table)

c) substituting said translation color point into said media information when said translation color point is found; (see Margulis col. 16, lines 53-67: color mapping) and

d) interpolating an estimated translation color point into said media information when said translation color point is not found. (see Margulis col. 14, lines 34-36; col. 19, line 66 - col. 20, line 3: color translation table)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Singhal to enable visual data color translation and color mapping techniques as taught by Margulis. One of ordinary skill in the art would be motivated to employ Margulis in order to enhance and optimize image quality for an image processing system. (see Margulis col. 5, lines 13-14)

Regarding Claim 34, Margulis discloses the method of claim 33 wherein said looking

up step comprises: looking up said translation color point in a look-up table. (see

Margulis col. 14, lines 34-36; col. 19, line 66 - col. 20, line 3: color translation table)

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Singhal to enable the usage of a color translation table as

taught by Margulis. One of ordinary skill in the art would be motivated to employ

Margulis in order to enhance and optimize image quality for an image processing

system. (see Margulis col. 5, lines 13-14)

Regarding Claim 35, Singhal discloses the method of claim 29 wherein said adapting

step comprises the steps of:

    a) determining when said resolution of said media information is not compatible with

        said user interface of said networked appliance; (see Singhal col. 7, lines 49-54:

        data manipulation information required for visual data display)

        Singhal does not disclose visual data display resolution adjustment

        techniques. However, Margulis discloses:

    b) down-sampling said resolution when said resolution is higher than said user

        interface; (see Margulis col. 19, lines 18-20; col. 21, lines 36-40: conversion from

        a high resolution to a low resolution) and

    c) up-sampling said resolution when said resolution is lower than said user

        interface. (see Margulis col. 23, lines 45-49: conversion from a low resolution to a

        high resolution)

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Singhal to enable adjustments to visual data between a

high and a low resolution as taught by Margulis. One of ordinary skill in the art would be

motivated to employ Margulis in order to enhance and optimize image quality for an

image processing system. (see Margulis col. 5, lines 13-14)

Regarding Claim 36, Singhal discloses the method of claim 31 farther comprising the

steps of:

   c) coding said media information according to said stored interface information for

      said another appliance connected to said network; (see Singhal col. 7, lines 17-

      20; col. 7, lines 52-54: convert visual data for display) and

   d) transmitting said multimedia information from said networked appliance to said

      another appliance connected to said network. (see Singhal col. 6, lines 41-51:

      communications network for data transmissions)

     Singhal does not disclose visual data resolution adjustment and color

     translation techniques.   However, Margulis discloses:

   a) adjusting said resolution of said media information according to said stored

      interface information for another appliance connected to said network; (see

      Margulis col. 19, lines 18-20; col. 21, lines 36-40: display resolution adjustment

      techniques)

   b) translating said color system of said networked appliance according to said

      stored interface information for said another appliance connected to said

network; (see Margulis col. 14, lines 34-36; col. 19, line 66 -col. 20, line 3: color

translation)

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Singhal to enable the usage of display resolution

adjustment and color translation techniques as taught by Margulis. One of ordinary skill

in the art would be motivated to employ Margulis in order to enhance and optimize

image quality for an image processing system. (see Margulis col. 5, lines 13-14)

Regarding Claim 37, Singhal discloses the method of claim 29 further comprising the

steps of:

  a) copying said received media information; (see Singhal col. 7, lines 49-54:

      repository (i.e. database) for content information) and

  b) transmitting said copied media information through said network interface. (see

      Singhal col. 6, lines 41-51: communications network for data transmissions)

6.   **Claims 20, 26** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Singhal-Margulis and further in view of **Carrein** (US Patent No. 6,262,744).

Regarding Claim 20, Singhal discloses the dynamic reformatting engine of claim 17

further comprising:

  b) code for communicating said copy of said image data to another of said

      appliances without any further processing to said copy. (see Singhal col. 7, lines

      25-29: forward (i.e. transfer) image data to client (i.e. appliance))

Singhal does not disclose the usage of a signal splitter. However, Carrein discloses:

a) a signal divider for making a copy of said image data; (see Carrein col. 8, lines 35-41: signal splitter capabilities, generating a copy)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Singhal to enable the usage of a signal splitter for the division of a signal as taught by Carrein. One of ordinary skill in the art would be motivated to employ Carrein in order to optimize and increase the colors represented on a display. (see Carrein col. 1, lines 8-10: " ... a wider gamut is obtained for the colour representation on such a display system ... " ; col. 1, lines 28-32: " ... a wider gamut ... for a display system ... where the aim is to obtain as natural as possible a representation of an original as, for example, in the case of digital cinema, digital photography ...")

Regarding Claim 26, Singhal discloses the network appliance further comprising: passing a non-reformatted copy of said visual data to another appliance on said network of appliances. (see Singhal col. 7, lines 25-29: forward (i.e. transfer) image data to appliance) Singhal does not disclose the usage of a signal splitter. However Carrein discloses the network appliance of claim 21 further comprising: a signal splitter for passing a copy of said visual data. (see Carrein col. 8, lines 35-41: signal splitter capabilities, generating a copy)

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Singhal to enable the usage of a signal splitter as taught

by Carrein. One of ordinary skill in the art would be motivated to employ Carrein in

order to optimize and increase the colors represented on a display. (see Carrein col. 1,

lines 8-10; col. 1, lines 28-32)

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Kyung H. Shin whose telephone number is (571) 272-

3920. The examiner can normally be reached on 9 am - 7 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

KHS
Kyung H Shin
Patent Examiner
Art Unit 2143

KHS
September 28, 2005

DAVID WILEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100